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(54) TRANSPARENT CONDUCTIVE SUBSTRATE FOR SOLAR BATTERY AND SOLAR BATTERY USING IT

(57)Abstract:

PURPOSE: To form a best particle of a laminated tin oxide film by providing a transparent conductive film with a diffraction peak by a (200) surface and a (110) surface and by providing diffraction strength by the (110) surface with specific relation to diffraction strength by the (200) surface in its X-ray diffraction pattern.

CONSTITUTION: In an X-ray diffraction pattern which is mainly composed of tin oxide and measured by using a proportional counter tube, etc., it is desirable that an X-ray scattering strength (height of peak) at a strongest diffraction angle has ten or more times X-ray scattering strength in a back ground thereabouts. When an X-ray diffraction pattern of a film is appreciated by a diffraction strength defined by a product of a height of diffraction peak and a peak width at half height, it is desirable that the diffraction strength of the (110) surface is 20 or larger and 120 or smaller when diffraction strength of the (200) surface is 100, and that 30 or larger and 100 or smaller is more desirable. Crystal of an upper layer film of (200) orientation on a lower layer film of (110) orientation is the best.

